

Remarks

The Specification

Applicant respectfully disagrees with the comments regarding the Specification on page 3, item number 4 of the Office Action. The term “shaft” is accurate. However, Applicant believes there may be a misunderstanding based on the translation. For clarification purposes, the specification is amended to “the knife 3 and the mounting 8 is **fixed by means of fixing device 13**”, rather than the previous wording “is **determined** by means of **stop 13**”. This function is described on page 6 (paragraph [00022] in the bottom of the paragraph). The eccentric 13” is situated crosswise to the shaft 5 in a groove 5’ of the shaft 5. If the eccentric 13” is turned by the shaft 13’, the mounting 8 with the knife 3 is fixed, because the eccentric 13” engages in the groove 5’ of the shaft 5.

Regarding the Office Action’s comments that “9” in line 4 should be deleted and reinserted after “lug” in line 5, and a numeral should be added to represent the notch (which should be shown at least in Fig. 2 as described above), Applicant agrees with the comments in the Office Action and has made appropriate correction.

The Drawings

A proposed Figure 2 and letter to the Draftsperson of the Patent Office are included herewith, which fully address the Examiner’s concerns with the Drawings.

Claim Rejections Under 35 USC 112

Claims 1-6 and 8 are rejected under 35 USC 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

The claims have been amended to overcome each of the objections raised in the Office Action. Applicant respectfully believes this amendment fully responds to the Examiner's "112" objections.

Claim Rejections Under 35 USC 102

Claims 1, 3-6, and 8 are rejected under 35 USC 102 as being anticipated by French Publication 2 549 098 (FP '098).

Valid rejection under 35 USC 102 requires that each feature of a rejected claim be disclosed in a single reference. "For anticipation under 35 USC 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present." MPEP 706.02(a).

FP '098 does not disclose each feature of the rejected claims 1, 3-6, and 8.

Claim 1 of the present invention, as amended, recites: "A microtome for the production of tissue sections in histology, in which an object to be section is passed past a stationary knife for production of said tissue sections..." (Emphasis added).

Contrary to claim 1 of the present invention, FP '098 does not deal with a microtome and tissue sections are not produced. FP '098 discloses a machine for cutting thread in a loom machine and threads of a double fabric are cut to produce velour. There is no stationary knife disclosed in FP '098. Instead, the knife is moved against the threads in order to cut the threads.

FP '098 discloses a movable slide (reference numeral 2). At the top of the knife carried by the slide, the two cutting edges (in the mode of Figure 1, they have the reference numerals 1A and 1B). The slide 2 moves in opposite directions, and in each direction, one of the cutting edges works. One of the directions is marked by the arrow F. The other direction is opposite. There is also a cutting edge at the bottom (in Figure 1, this is marked with the reference numeral

1C). Simultaneously with the above mentioned movement, the edge at the bottom is sharpened by the grindstones 4 and 5. Particularly, the following portion of FP '098's specification is emphasized: "...c'est le trenchant 1A qui travaille lorsque le chariot portelame se dis deplace dans le sens de la fleche "f", tandis que c'est le trenchant 1B qui travaille lorsque le chariot se deplace dans le sens oppose; ce travail consiste dans la cope des fils poil 41 (Figure 5) de maniere a separarer les deux nappes 42, 43 du tissu double produit pour la fabrication du velous, suivant und technique classique". In English, this portion of FP '098 translates to: "The cutting edge 1A works when the slide 2 carrying the knife moves in the direction of the arrow "F". When the slide 2 moves in the other direction, the cutting edge 1B works. This process consists of cutting the face wrap threads 41 (Figure 5) to separate the two layers 42 and 43 of the double fabric 44, which is produced to make velour in a traditional way."

Therefore, given the above discussion, the subject of the present invention as claimed is not disclosed by FP '098.

Claim Rejections Under 35 USC 103

Claim 2 stands rejected as being unpatentable over FP '098.

A person having ordinary skill in the art to which the subject matter of the invention pertains does not look at a document which is of a non-analogous art to the subject invention. As the person having ordinary skill in the art does not consider a document of non-analogous art, a rejection according to §103 cannot be based on it (CCPA 1971, *In re Antle*, 444 F. 2d 1168, 170 U.S. P.Q. 285).

Production of fabric is of non-analogous art to the technique of histology, which belongs to medical techniques. Moreover, cutting threads of fabric is quite different to cutting tissue in the medical field. In the first instance, threads are cut through. In the second instance, exact,

wafer-thin sections are produced for examination under a microscope. In the introductory portion of the specification of the present invention (page 1, paragraph [0003]), the problems of producing such wafer-thin sections are described, especially pointing out the danger of an accident by using long cutting edges. Such long cutting edges are used in order to have sharp areas along the edge for a long period of time. Therefore, the object of the present invention is to construct a knife holder and a knife of the above-mentioned kind, such that the knife holder can be constituted to be ergonomic, making work simpler and safer. This also has the advantage that the knife does not need to be changed as frequently (see page 2, paragraph [0004]).

Ergonomics and safety are related to the above-mentioned danger of having an accident by picking up the wafer-thin sections manually. If the person skilled in the art knows FP '098, which would not be the case since it is of non-analogous art, he or she could not find a solution for the problem that the present invention solves. According to FP'098, the knife is carried on a slide that is movable on a sliding rail. This is mounted cross-wise to the frame of the machine to produce velours. The layers (42, 43) of the double fabric (44) are separated by an automatic jigback motion and then each of them is moved away. This is disclosed in Figure 5 and the following passages (translated into English) in FP'098:

- Page 1, lines 6 to 9: "Such devices usually have a knife mounted on a slide which is movable on a sliding rail arranged crosswise to the frame of the machine..."
- Page 2, lines 2 to 5: "In fact, it is carried on a slide which runs in a straight line so that the cutting edges are moved in the same way."

This is also disclosed in the above-mentioned and translated text.

The problem set forth in the introductory portion of the specification of FP '098 is different from the problem solved by the present invention. FP '098 seeks to solve problems caused by the grinding of cutting edges with circular profiles. These are the following:

On page 2, lines 8 to 11 of FP '098: "It is very difficult to keep the cutting edges in the correct shape and to keep this correct shape after adjusting or exchanging the knife." FP '098 seeks to overcome these difficulties (page 2, lines 13 to 17).

The subject of FP '098 is not to avoid the necessary changes of the knife, but to keep the correct cutting angle. There will be no problem with manually picking up the cut material, as velour will not stick to the edge of the knife in small pieces. In opposition to the present invention, the production of fabric is a continuous process.

The result is that a person of ordinary skill in the art who wants to solve the problem that the present invention resolves would not look to FP '098, even if he were to hold FP '098 in his hands for consideration. The subject of FP '098 is so foreign (non-analogous) to the art of the present invention that there is no relationship between the technical problems nor the solutions to the problems.

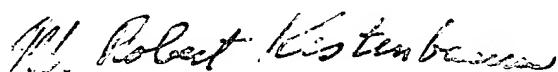
The Patent to Wistedt

Wistedt '875 deals with an apparatus for trimming a specimen to a suitable size and shape in order to process it in a microtome. Therefore, it is an apparatus for preparing a specimen before processing the specimen by a microtome. Moreover, this document does not disclose a knife that is shaped as a regular polygon with edges that comprise cutting edges.

A one month extension of time in which to respond to the outstanding Office Action is respectfully requested. PTO Form 2038 is enclosed to authorize charging a credit card for the prescribed large entity extension fee of \$110. Please charge any additional fees due or credit any refunds due to Deposit Account 11-0665. A duplicate page is enclosed for this purpose.

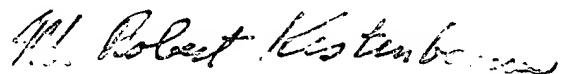
Wherefore, further consideration and allowance of the claims in this application is respectfully requested.

Respectfully submitted,



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M. Robert Kestenbaum

"Version with Markings to show Changes Made"

Claim 1 (Amended twice): A microtome for the production of tissue sections in histology, in which an object to be sectioned is passed past a stationary knife for production of said tissue sections, comprising:

a disk-shaped knife, which has the shape of a regular polygon, with edges that comprise cutting edges, and

a knife holder with a knife receiver for arresting and positioning said disk-shaped knife, wherein said knife is received in said knife receiver, and,

wherein said knife receiver has a shaft about which said knife is rotatable and, whereby by rotation of said knife about said shaft various ones of said of cutting edges can be brought into a position to cut said object.

Claim 2 (Amended): The microtome according to Claim 1, wherein said knife holder has a depression in which said knife is received and for protection of said cutting edges, with an opening that serves for working use of one of said cutting edges.

Claim 3 (Amended): The microtome according to Claim 1, wherein said knife receiver comprises a rotatable mounting that mounts said knife in said knife receiver.

Claim 4 (Amended twice): The microtome according to Claim 3, wherein said rotatable mounting [has] comprises a positioning element [for holding] that holds said knife in a position, [by which positioning element] by which said cutting edges of said knife come into a defined position relative to said mounting.

Claim 5 (Amended twice): The microtome according to Claim 4, wherein said knife holder [has] comprises [a detent for said shaft that latches] means for latching said rotatable mounting when one of said cutting edges is situated in a cutting position.

Claim 6 (Amended): The microtome according to Claim 3, wherein said knife receiver has a plane surface wherein the knife is positioned between said plane surface and said rotatable mounting.

Claim 7 (Amended twice): The microtome according to Claim 1, further comprising a numbering arrangement assigned to said cutting edges of said knife[.] ,associated with said rotatable mounting.

Claim 8 (Amended twice): The microtome according to Claim 1, further comprising a releasable [stop for fixing] arresting device that fixes said knife in cutting positions.

Claim 9 (Amended): The microtome according to Claim 1, wherein said knife holder comprises a knife holder housing that is chamfered left and right of a location for said cutting edge when said cutting edge is in a position for use.

Claim 10 (Amended): The microtome according to Claim 1, wherein said knife holder comprises a knife holder housing that is rounded off left and right of a location for said cutting edge when said cutting edge is in a position for use.

Claim 11 (Amended): A microtome for production of tissue sections in histology, in which an object to be sectioned is passed past a stationary knife for production of said tissue sections, wherein said knife is disk-shaped in a shape of a regular polygon, and said knife has edges that are cutting edges.

Claim 12 (Amended): The microtome according to Claim 11, wherein said knife has a bore in its middle for reception of said knife in a knife receiver.

Claim 13 (Amended): The microtome according to Claim 11, wherein said knife has an engagement for a positioning element of a knife receiver.

Claim 14: The microtome according to Claim 11, wherein said knife comprises an octagon shape.

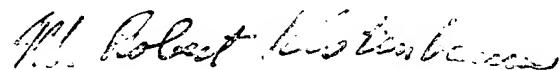
“Version with Markings to show Changes Made” to the Specification

[0022] Fig. 3 shows a partial view in the form of a section III-III of Fig. 1. The arrangement of the knife 3 in the knife holder housing 14 is shown. The knife 3 is placed with the mounting 8 on shaft 5 and is held by means of a closure 18. The positioning element [9], constituted as a lug 9 on the shaft 5 and as notches on the mounting 8 and knife 3 serves to determine the position of the cutting edges 4 with respect to the shaft 5 and thus with respect to a detent 10. The detent 10, constituted as a spring-loaded ball or in another manner, engages in latching positions such that the cutting edges 4 always arrive in the correct working position upon rotation of the mounting 8 with the knife 3. For the use of a cutting edge 4, the knife 3 and the mounting 8 is [determined] fixed by means of the [stop 13] fixing device 13. For this purpose, in this embodiment, a shaft 13' with an eccentric 13'' is proposed, wherein the latter engages in a groove 5' of the shaft 5. By the actuation of the lever of the stop 13, the mounting 8 with the knife 3 can be fixed, or can be released for turning further on or for changing the knife 3.

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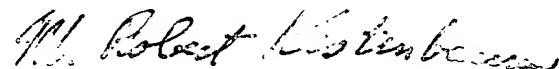
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